

under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 19-0036.

*Amendments*

*In the Claims:*

Please cancel claims 22-33, 35-51, 53, 55-70, 72, 75-81, 84-89, 92-105, 108-114, 118, 120-124, 126-141, 144-152, 156, 158-161, 165-173, 176-195, and 198-219 without prejudice or disclaimer.

Please add the following claims:

~~220~~<sup>1</sup>. (New) An isolated polynucleotide comprising a nucleic acid which encodes a polypeptide comprising an amino acid sequence at least 90% identical to amino acids 24 to 468 of SEQ ID NO:2;

wherein said polypeptide binds TNF-related apoptosis-inducing ligand (TRAIL).

E1 ~~221~~<sup>2</sup>. (New) The polynucleotide of claim ~~220~~<sup>1</sup>, wherein said amino acid sequence is at least 95% identical to amino acids 24 to 468 of SEQ ID NO:2.

~~222~~<sup>3</sup>. (New) The polynucleotide of claim ~~220~~<sup>1</sup>, wherein said polypeptide induces apoptosis.

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~~4~~  
~~223~~. (New) The polynucleotide of claim ~~220~~<sup>1</sup>, further comprising a heterologous polynucleotide.

~~5~~  
~~224~~. (New) The polynucleotide of claim ~~223~~<sup>4</sup>, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

~~6~~  
~~225~~. (New) The polynucleotide of claim ~~224~~<sup>5</sup>, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

~~7~~  
~~226~~. (New) The polynucleotide of claim ~~225~~<sup>6</sup>, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

~~8~~  
~~227~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~220~~<sup>1</sup> into a vector.

~~9~~  
~~228~~. (New) A vector comprising the polynucleotide of claim ~~220~~<sup>1</sup>.

~~10~~  
~~229~~. (New) The vector of claim ~~228~~<sup>9</sup>, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

~~11~~  
~~230~~. (New) A host cell comprising the polynucleotide of claim ~~220~~<sup>1</sup>.

E1  
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<sup>12</sup>  
~~231.~~ (New) The host cell of claim ~~230~~<sup>11</sup>, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>13</sup>  
~~232.~~ (New) (**Non-Elected**) A method of using the host cell of claim ~~230~~<sup>11</sup> to screen for ligand binding, comprising culturing said host cell under conditions such that a polypeptide encoded by said polynucleotide is expressed, contacting said polypeptide with a ligand, and detecting binding of said ligand to said polypeptide.

<sup>14</sup>  
~~233.~~ (New) A method of producing the polypeptide encoded by the polynucleotide of claim ~~220~~, comprising:

- (a) culturing a host cell comprising said nucleic acid under conditions such that said polypeptide is expressed; and
- <sup>15</sup>  
~~234.~~ (b) recovering said polypeptide.

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Cont.

<sup>15</sup>  
~~234.~~ (New) An isolated polynucleotide comprising a first nucleic acid at least 90% identical to a second nucleic acid encoding amino acids 24 to 468 of SEQ ID NO:2, wherein said first nucleic acid hybridizes to the complement of nucleotides 19 to 1422 of SEQ ID NO:1 under conditions comprising:

- <sup>16</sup>  
~~235.~~ (a) incubating at ~~42~~<sup>42</sup>°C in a solution consisting of 50% formamide, 5x SSC, 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA; and
  - (b) washing at 65°C in a solution consisting of 0.1x SSC.
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~~16~~  
~~233.~~ (New) The polynucleotide of claim ~~15~~ 234, wherein said first nucleic acid is at least 95% identical to said second nucleic acid.

~~19~~  
~~236.~~ (New) The polynucleotide of claim ~~15~~ 234, wherein said second nucleic acid encodes amino acids 2 to 468 of SEQ ID NO:2.

~~17~~  
~~237.~~ (New) The polynucleotide of claim ~~16~~ 235, wherein said second nucleic acid encodes amino acids 1 to 468 of SEQ ID NO:2.

~~18~~  
~~238.~~ (New) The polynucleotide of claim ~~17~~ 237, wherein said second nucleic acid is SEQ ID NO:1.

~~20~~  
~~239.~~ (New) The polynucleotide of claim ~~15~~ 234, wherein said first nucleic acid encodes a polypeptide which binds TRAIL.

~~25~~  
~~240.~~ (New) The polynucleotide of claim ~~15~~ 234, wherein said first nucleic acid encodes a polypeptide which induces apoptosis.

~~26~~  
~~241.~~ (New) The polynucleotide of claim ~~15~~ 234, further comprising a heterologous polynucleotide.

~~27~~  
~~242.~~ (New) The polynucleotide of claim ~~26~~ 241, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

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<sup>28</sup>  
~~243.~~ (New) The polynucleotide of claim ~~242~~<sup>27</sup>, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

<sup>29</sup>  
~~244.~~ (New) The polynucleotide of claim ~~243~~<sup>28</sup>, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

<sup>30</sup>  
~~245.~~ (New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~234~~<sup>15</sup> into a vector.

<sup>31</sup>  
~~246.~~ (New) A vector comprising the polynucleotide of claim ~~234~~<sup>15</sup>.

<sup>32</sup>  
~~247.~~ (New) The vector of claim ~~246~~<sup>27</sup>, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>33</sup>  
~~248.~~ (New) A host cell comprising the polynucleotide of claim ~~234~~<sup>15</sup>.

<sup>34</sup>  
~~249.~~ (New) The host cell of claim ~~248~~<sup>29</sup>, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>22</sup>  
~~250.~~ (New) A host cell comprising the polynucleotide of claim ~~239~~<sup>20</sup>.

<sup>23</sup>  
~~251.~~ (New) The host cell of claim ~~250~~<sup>22</sup>, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

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<sup>24</sup>  
~~252~~. (New) **(Non-Elected)** A method of using the host cell of claim <sup>22</sup>~~250~~ to screen for ligand binding, comprising culturing said host cell under conditions such that a polypeptide encoded by said polynucleotide is expressed, contacting said polypeptide with a ligand, and detecting binding of said ligand to said polypeptide.

<sup>21</sup>  
~~253~~. (New) A method of producing the polypeptide encoded by the polynucleotide of claim <sup>20</sup>~~259~~, comprising:

- (a) culturing a host cell comprising said first nucleic acid under conditions such that said polypeptide is expressed; and
- (b) recovering said polypeptide.

<sup>35</sup>  
~~254~~. (New) An isolated polynucleotide comprising a nucleic acid which encodes amino acids 24 to 468 of SEQ ID NO:2.

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Cont.  
<sup>36</sup>  
~~255~~. (New) The polynucleotide of claim <sup>32</sup>~~254~~, which comprises nucleotides 88 to 1422 of SEQ ID NO:1.

<sup>37</sup>  
~~256~~. (New) The polynucleotide of claim <sup>32</sup>~~254~~, wherein said nucleic acid encodes amino acids 2 to 468 of SEQ ID NO:2.

<sup>38</sup>  
~~257~~. (New) The polynucleotide of claim <sup>34</sup>~~256~~, which comprises nucleotides 22 to 1422 of SEQ ID NO:1.

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<sup>39</sup>  
~~258~~ (New) The polynucleotide of claim ~~256~~<sup>37</sup>, wherein said nucleic acid encodes amino acids 1 to 468 of SEQ ID NO:2.

<sup>40</sup>  
~~259~~ (New) The polynucleotide of claim ~~258~~<sup>38</sup>, which comprises nucleotides 19 to 1422 of SEQ ID NO:1.

<sup>41</sup>  
~~260~~ (New) The polynucleotide of claim ~~259~~<sup>39</sup> which comprises SEQ ID NO:1.

<sup>42</sup>  
~~261~~ (New) The polynucleotide of claim ~~254~~<sup>30</sup>, which encodes a polypeptide which binds TRAIL.

<sup>43</sup> <sup>46</sup>  
~~262~~ (New) The polynucleotide of claim ~~254~~<sup>35</sup>, which encodes a polypeptide which induces apoptosis.

<sup>47</sup>  
~~263~~ (New) The polynucleotide of claim ~~254~~<sup>35</sup>, further comprising a heterologous polynucleotide.

<sup>48</sup>  
~~264~~ (New) The polynucleotide of claim ~~263~~<sup>47</sup>, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

<sup>49</sup>  
~~265~~ (New) The polynucleotide of claim ~~264~~<sup>48</sup>, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

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<sup>30</sup>  
~~266~~. (New) The polynucleotide of claim <sup>49</sup>~~265~~, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

<sup>51</sup>  
~~267~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim <sup>35</sup>~~254~~ into a vector.

<sup>52</sup>  
~~268~~. (New) A vector comprising the polynucleotide of claim <sup>35</sup>~~254~~.

<sup>53</sup>  
~~269~~. (New) The vector of claim <sup>52</sup>~~268~~, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>54</sup>  
~~270~~. (New) A host cell comprising the polynucleotide of claim <sup>35</sup>~~254~~.

<sup>55</sup>  
~~271~~. (New) The host cell of claim <sup>54</sup>~~270~~, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>43</sup>  
~~272~~. (New) A host cell comprising the polynucleotide of claim <sup>42</sup>~~261~~.

<sup>44</sup>  
~~273~~. (New) The host cell of claim <sup>43</sup>~~272~~, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>45</sup>  
~~274~~. (New) **(Non-Elected)** A method of using the host cell of claim <sup>43</sup>~~272~~ to screen for ligand binding, comprising culturing said host cell under conditions such that a

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polypeptide encoded by said polynucleotide is expressed, contacting said polypeptide with a ligand, and detecting binding of said ligand to said polypeptide.

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275 (New) A method of producing a polypeptide encoded by the nucleic acid of claim 254, comprising:

- (a) culturing a host cell comprising said nucleic acid under conditions such that said polypeptide is expressed; and
- (b) recovering said polypeptide.

57  
276. (New) An isolated polynucleotide comprising a nucleic acid which encodes a polypeptide comprising an amino acid sequence at least 90% identical to amino acids 24 to 238 of SEQ ID NO:2;

wherein said polypeptide binds TRAIL.

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cont.  
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277. (New) The polynucleotide of claim 276, wherein said amino acid sequence is at least 95% identical to amino acids 24 to 238 of SEQ ID NO:2.

59  
278. (New) The polynucleotide of claim 276, further comprising a heterologous polynucleotide.

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279. (New) The polynucleotide of claim 278, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

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<sup>60</sup>  
~~280.~~ (New) The polynucleotide of claim ~~279~~, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

<sup>61</sup>  
~~281.~~ (New) The polynucleotide of claim ~~280~~, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

<sup>63</sup>  
~~282.~~ (New) A method of producing a vector that comprises inserting the polynucleotide of claim <sup>51</sup>~~276~~ into a vector.

<sup>64</sup>  
~~283.~~ (New) A vector comprising the polynucleotide of claim <sup>57</sup>~~276~~.

<sup>65</sup>  
~~284.~~ (New) The vector of claim <sup>64</sup>~~283~~, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>66</sup>  
~~285.~~ (New) A host cell comprising the polynucleotide of claim <sup>57</sup>~~276~~.

<sup>67</sup>  
~~286.~~ (New) The host cell of claim <sup>66</sup>~~285~~, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>68</sup>  
~~287.~~ (New) **(Non-Elected)** A method of using the host cell of claim <sup>67</sup>~~286~~ to screen for ligand binding, comprising culturing said host cell under conditions such that a polypeptide encoded by said polynucleotide is expressed, contacting said polypeptide with a ligand, and detecting binding of said ligand to said polypeptide.

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<sup>69</sup>  
~~288~~. (New) A method of producing the polypeptide encoded by the  
<sup>57</sup>  
polynucleotide of claim ~~27~~6, comprising:

- (a) culturing a host cell comprising said nucleic acid under conditions such that said polypeptide is expressed; and
- (b) recovering said polypeptide.

<sup>70</sup>  
~~289~~. (New) An isolated polynucleotide comprising a first nucleic acid at least 90% identical to a second nucleic acid encoding amino acids 24 to 238 of SEQ ID NO:2, wherein said first nucleic acid hybridizes to the complement of nucleotides 19 to 1422 of SEQ ID NO:1 under conditions comprising:

- (a) incubating at 42°C in a solution consisting of 50% formamide, 5x SSC, 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA; and
- (b) washing at 65°C in a solution consisting of 0.1x SSC.

E1 cont.  
<sup>71</sup>  
290. (New) The polynucleotide of claim <sup>70</sup>~~289~~, wherein said first nucleic acid is at least 95% identical to said second nucleic acid.

<sup>72</sup>  
291. (New) The polynucleotide of claim <sup>70</sup>~~289~~, wherein said second nucleic acid encodes amino acids 2 to 238 of SEQ ID NO:2.

<sup>73</sup>  
~~292~~. (New) The polynucleotide of claim <sup>72</sup>~~291~~, wherein said second nucleic acid encodes amino acids 1 to 238 of SEQ ID NO:2.

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<sup>74</sup>  
~~293~~. (New) The polynucleotide of claim ~~289~~<sup>70</sup>, wherein said first nucleic acid encodes a polypeptide which binds TRAIL.

<sup>79</sup>  
~~294~~. (New) The polynucleotide of claim ~~289~~<sup>70</sup>, further comprising a heterologous polynucleotide.

<sup>80</sup>  
~~295~~. (New) The polynucleotide of claim ~~294~~<sup>79</sup>, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

<sup>81</sup>  
~~296~~. (New) The polynucleotide of claim ~~295~~<sup>80</sup>, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

<sup>82</sup>  
~~297~~. (New) The polynucleotide of claim ~~296~~<sup>81</sup>, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

<sup>83</sup>  
~~298~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~289~~<sup>70</sup> into a vector.

<sup>84</sup>  
~~299~~. (New) A vector comprising the polynucleotide of claim ~~289~~<sup>70</sup>.

<sup>85</sup>  
~~300~~. (New) The vector of claim ~~299~~<sup>84</sup>, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

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E1  
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<sup>86</sup>  
~~301~~. (New) A host cell comprising the polynucleotide of claim ~~289~~.

<sup>87</sup>  
~~302~~. (New) The host cell of claim ~~301~~, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>75</sup>  
~~303~~. (New) A host cell comprising the polynucleotide of claim ~~293~~.

<sup>76</sup>  
~~304~~. (New) The host cell of claim ~~303~~, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>77</sup>  
~~305~~. (New) **(Non-Elected)** A method of using the host cell of claim ~~303~~ to screen for ligand binding, comprising culturing said host cell under conditions such that a polypeptide encoded by said polynucleotide is expressed, contacting said polypeptide with a ligand, and detecting binding of said ligand to said polypeptide.

<sup>78</sup>  
~~306~~. (New) A method of producing the polypeptide encoded by the polynucleotide of claim ~~293~~, comprising:

- (a) culturing a host cell comprising said first nucleic acid under conditions such that said polypeptide is expressed; and
- (b) recovering said polypeptide.

<sup>88</sup>  
~~307~~. (New) An isolated polynucleotide comprising a nucleic acid which encodes amino acids 24 to 238 of SEQ ID NO:2.

E1  
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<sup>89</sup>  
~~308~~. (New) The polynucleotide of claim ~~307~~<sup>88</sup>, which comprises nucleotides 88 to 732 of SEQ ID NO:1.

<sup>90</sup>  
~~309~~. (New) The polynucleotide of claim ~~307~~<sup>88</sup>, wherein said nucleic acid encodes amino acids 2 to 238 of SEQ ID NO:2.

<sup>91</sup>  
~~310~~. (New) The polynucleotide of claim ~~309~~<sup>90</sup>, which comprises nucleotides 22 to 732 of SEQ ID NO:1.

<sup>92</sup>  
~~311~~. (New) The polynucleotide of claim ~~309~~<sup>90</sup>, wherein said nucleic acid encodes amino acids 1 to 238 of SEQ ID NO:2.

<sup>93</sup>  
~~312~~. (New) The polynucleotide of claim ~~311~~<sup>92</sup>, which comprises nucleotides 19 to 732 of SEQ ID NO:1.

<sup>94</sup>  
~~313~~. (New) The polynucleotide of claim ~~307~~<sup>88</sup>, wherein said nucleic acid encodes a polypeptide which binds TRAIL.

<sup>98</sup>  
314. (New) The polynucleotide of claim ~~307~~<sup>88</sup>, further comprising a heterologous polynucleotide.

<sup>99</sup>  
~~315~~. (New) The polynucleotide of claim ~~314~~<sup>98</sup>, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

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<sup>100</sup>  
3/6. (New) The polynucleotide of claim <sup>99</sup>3/5, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

<sup>101</sup>  
3/7. (New) The polynucleotide of claim <sup>100</sup>3/6, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

<sup>102</sup>  
3/8. (New) A method of producing a vector that comprises inserting the polynucleotide of claim <sup>88</sup>3/7 into a vector.

<sup>103</sup>  
3/9. (New) A vector comprising the polynucleotide of claim <sup>88</sup>3/7.

<sup>104</sup>  
3/20. (New) The vector of claim <sup>103</sup>3/9, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>105</sup>  
3/21. (New) A host cell comprising the polynucleotide of claim <sup>84</sup>3/7.

<sup>106</sup>  
3/22. (New) The host cell of claim <sup>105</sup>3/21, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>95</sup>  
3/23. (New) A host cell comprising the polynucleotide of claim <sup>94</sup>3/3.

<sup>96</sup>  
3/24. (New) The host cell of claim <sup>95</sup>3/23, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

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(New) **(Non-Elected)** A method of using the host cell of claim 324 to screen for ligand binding, comprising culturing said host cell under conditions such that a polypeptide encoded by said polynucleotide is expressed, contacting said polypeptide with a ligand, and detecting binding of said ligand to said polypeptide.

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(New) A method of producing a polypeptide encoded by the nucleic acid of claim 307, comprising:

- (a) culturing a host cell comprising said nucleic acid under conditions such that said polypeptide is expressed; and
- (b) recovering said polypeptide.

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(New) An isolated polynucleotide comprising a first nucleic acid at least 90% identical to a second nucleic acid encoding amino acids 239-264 of SEQ ID NO:2; wherein said first nucleic acid hybridizes to the complement of nucleotides 19 to 1422 of SEQ ID NO:1 under conditions comprising:

- (a) incubating at 42°C in a solution consisting of 50% formamide, 5x SSC, 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA; and
- (b) washing at 65°C in a solution consisting of 0.1x SSC.

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(New) The polynucleotide of claim 327, wherein said first nucleic acid is at least 95% identical to said second nucleic acid.

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<sup>110</sup>  
~~329~~. (New) The polynucleotide of claim ~~328~~<sup>109</sup>, wherein said first nucleic acid encodes amino acids 239 to 264 of SEQ ID NO:2.

<sup>111</sup>  
~~330~~. (New) The polynucleotide of claim ~~329~~<sup>110</sup>, wherein said first nucleic acid comprises nucleotides 733 to 810 of SEQ ID NO:1.

<sup>112</sup>  
~~331~~. (New) The polynucleotide of claim ~~327~~<sup>108</sup>, further comprising a heterologous polynucleotide.

<sup>113</sup>  
~~332~~. (New) The polynucleotide of claim ~~331~~<sup>112</sup>, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

<sup>114</sup>  
~~333~~. (New) The polynucleotide of claim ~~332~~<sup>113</sup>, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

<sup>115</sup>  
~~334~~. (New) The polynucleotide of claim ~~333~~<sup>114</sup>, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

<sup>116</sup>  
~~335~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~327~~<sup>108</sup> into a vector.

<sup>117</sup>  
~~336~~. (New) A vector comprising the polynucleotide of claim ~~327~~<sup>108</sup>.

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337. (New) The vector of claim 336, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

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338. (New) A host cell comprising the polynucleotide of claim 337.

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339. (New) The host cell of claim 338, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

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340. (New) An isolated polynucleotide comprising a nucleic acid which encodes a polypeptide at least 90% identical to amino acids 265 to 468 of SEQ ID NO:2; wherein a DR4 variant consisting of amino acids 24 to 468 of SEQ ID NO:2, with the exception that amino acids 265-468 of SEQ ID NO:2 are deleted and replaced with said polypeptide, induces apoptosis *in vitro* when over-expressed in human 293 embryonic kidney cells.

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341. (New) The polynucleotide of claim 340, wherein said polypeptide is at least 95% identical to amino acids 265 to 468 of SEQ ID NO:2.

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342. (New) The polynucleotide of claim 341, which encodes amino acids 265 to 468 of SEQ ID NO:2.

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343. (New) The polynucleotide of claim 342, which comprises nucleotides 811 to 1422 of SEQ ID NO:1.

E1  
Cont.

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<sup>125</sup>  
~~344~~. (New) The polynucleotide of claim ~~340~~<sup>121</sup>, further comprising a heterologous polynucleotide.

<sup>126</sup>  
~~345~~. (New) The polynucleotide of claim ~~344~~<sup>125</sup>, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

<sup>127</sup>  
~~346~~. (New) The polynucleotide of claim ~~345~~<sup>126</sup>, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

<sup>128</sup>  
~~347~~. (New) The polynucleotide of claim ~~346~~<sup>127</sup>, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

<sup>129</sup>  
~~348~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~340~~<sup>121</sup> into a vector.

<sup>130</sup>  
~~349~~. (New) A vector comprising the polynucleotide of claim ~~340~~<sup>121</sup>.

<sup>131</sup>  
~~350~~. (New) The vector of claim ~~349~~<sup>130</sup>, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>132</sup>  
~~351~~. (New) A host cell comprising the polynucleotide of claim ~~340~~<sup>121</sup>.

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<sup>133</sup>  
~~352.~~ (New) The host cell of claim ~~351~~<sup>132</sup>, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>134</sup>  
~~353.~~ (New) A method of producing the polypeptide encoded by the polynucleotide of claim ~~340~~<sup>131</sup>, comprising:

- (a) culturing a host cell comprising said first nucleic acid under conditions such that said polypeptide is expressed; and
- (b) recovering said polypeptide.

<sup>135</sup>  
~~354.~~ (New) An isolated polynucleotide comprising a first nucleic acid at least 90% identical to a second nucleic acid encoding amino acids 265 to 468 of SEQ ID NO:2; wherein said first nucleic acid hybridizes to the complement of nucleotides 19 to 1422 of SEQ ID NO:1 under conditions comprising:

- (a) incubating at 42°C in a solution consisting of 50% formamide, 5x SSC, 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA; and
- (b) washing at 65°C in a solution consisting of 0.1x SSC.

<sup>136</sup>  
~~355.~~ The polynucleotide of claim ~~354~~<sup>135</sup>, wherein said first nucleic acid is at least 95% identical to said second nucleic acid.

<sup>137</sup>  
~~356.~~ (New) The polynucleotide of claim ~~353~~<sup>136</sup>, wherein said first nucleic acid encodes amino acids 265 to 468 of SEQ ID NO:2.

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Cont.

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<sup>138</sup>  
357. (New) The polynucleotide of claim <sup>137</sup>356, wherein said first nucleic acid comprises nucleotides 811 to 1422 of SEQ ID NO:1.

<sup>139</sup>  
358. (New) The polynucleotide of claim <sup>135</sup>354, wherein said first nucleic acid encodes a polypeptide, and wherein a DR4 variant consisting of amino acids 24 to 468 of SEQ ID NO:2, with the exception that amino acids 265-468 of SEQ ID NO:2 are deleted and replaced with said polypeptide, induces apoptosis *in vitro* when over-expressed in human 293 embryonic kidney cells.

<sup>143</sup>  
359. (New) The polynucleotide of claim <sup>135</sup>354, further comprising a heterologous polynucleotide.

<sup>144</sup>  
360. (New) The polynucleotide of claim <sup>143</sup>359, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

<sup>145</sup>  
361. (New) The polynucleotide of claim <sup>144</sup>360, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

<sup>146</sup>  
362. (New) The polynucleotide of claim <sup>145</sup>361, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

<sup>147</sup>  
363. (New) A method of producing a vector that comprises inserting the polynucleotide of claim <sup>135</sup>354 into a vector.

E1  
Cont.

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<sup>148</sup>  
~~364~~. (New) A vector comprising the polynucleotide of claim ~~354~~.<sup>135</sup>

<sup>149</sup>  
~~365~~. (New) The vector of claim ~~364~~,<sup>148</sup> wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>150</sup>  
~~366~~. (New) A host cell comprising the polynucleotide of claim ~~364~~.<sup>135</sup>

<sup>151</sup>  
~~367~~. (New) The host cell of claim ~~366~~,<sup>150</sup> wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>140</sup>  
~~368~~. (New) A host cell comprising the polynucleotide of claim ~~358~~.<sup>139</sup>

<sup>141</sup>  
~~369~~. (New) The host cell of claim ~~368~~,<sup>140</sup> wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>142</sup>  
~~370~~. (New) A method of producing the polypeptide encoded by the polynucleotide of claim ~~358~~,<sup>139</sup> comprising:

- (a) culturing a host cell comprising said first nucleic acid under conditions such that said polypeptide is expressed; and
- (b) recovering said polypeptide.

E1  
Cont.

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<sup>152</sup>  
~~371~~. (New) An isolated polynucleotide comprising a nucleic acid which encodes a polypeptide at least 90% identical to amino acids 379 to 422 of SEQ ID NO:2; wherein a DR4 variant consisting of amino acids 24 to 468 of SEQ ID NO:2, with the exception that amino acids 379 to 422 of SEQ ID NO:2 are deleted and replaced with said polypeptide, induces apoptosis *in vitro* when over-expressed in human 293 embryonic kidney cells.

<sup>153</sup>  
~~372~~. (New) The polynucleotide of claim ~~371~~<sup>152</sup>, wherein said polypeptide is at least 95% identical to amino acids 379 to 422 of SEQ ID NO:2.

<sup>154</sup>  
~~373~~. (New) The polynucleotide of claim ~~372~~<sup>153</sup>, which encodes amino acids 379 to 422 of SEQ ID NO:2.

<sup>155</sup>  
~~374~~. (New) The polynucleotide of claim ~~373~~<sup>154</sup>, which comprises nucleotides 1153 to 1284 of SEQ ID NO:1.

<sup>156</sup>  
~~375~~. (New) The polynucleotide of claim ~~374~~<sup>155</sup>, further comprising a heterologous polynucleotide.

<sup>157</sup>  
~~376~~. (New) The polynucleotide of claim ~~375~~<sup>156</sup>, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

E1  
Cont.

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<sup>158</sup>  
~~377~~. (New) The polynucleotide of claim ~~376~~<sup>157</sup>, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

<sup>159</sup>  
~~378~~. (New) The polynucleotide of claim ~~377~~<sup>158</sup>, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

<sup>160</sup>  
~~379~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~371~~<sup>152</sup> into a vector.

<sup>161</sup>  
~~380~~. (New) A vector comprising the polynucleotide of claim ~~371~~<sup>152</sup>.

<sup>162</sup>  
~~381~~. (New) The vector of claim ~~380~~<sup>161</sup>, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>163</sup>  
~~382~~. (New) A host cell comprising the polynucleotide of claim ~~371~~<sup>152</sup>.

<sup>164</sup>  
~~383~~. (New) The host cell of claim ~~382~~<sup>163</sup>, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>165</sup>  
~~384~~. (New) A method of producing the polypeptide encoded by the polynucleotide of claim ~~371~~<sup>152</sup>, comprising:

(a) culturing a host cell comprising said nucleic acid under conditions such that said polypeptide is expressed; and

E1  
Cont.

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(b) recovering said polypeptide.

~~146~~  
~~385~~. (New) An isolated polynucleotide comprising a first nucleic acid at least 90% identical to a second nucleic acid encoding amino acids 379 to 422 of SEQ ID NO:2;

wherein said first nucleic acid hybridizes to the complement of nucleotides 19 to 1422 of SEQ ID NO:1 under conditions comprising:

(a) incubating at 42°C in a solution consisting of 50% formamide, 5x SSC, 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA; and

(b) washing at 65°C in a solution consisting of 0.1x SSC. ✓

~~167~~  
~~386~~. (New) The polynucleotide of claim ~~385~~<sup>168</sup>, wherein said first nucleic acid is at least 95% identical to said second nucleic acid.

E1  
Cont.  
~~168~~  
~~387~~. (New) The polynucleotide of claim ~~386~~<sup>167</sup>, wherein said first nucleic acid encodes amino acids 379 to 422 of SEQ ID NO:2.

~~169~~  
~~388~~. (New) The polynucleotide of claim ~~387~~<sup>168</sup>, wherein said first nucleic acid comprises nucleotides 1153 to 1284 of SEQ ID NO:1.

~~170~~  
~~389~~. (New) The polynucleotide of claim ~~388~~<sup>169</sup>, wherein said first nucleic acid encodes a polypeptide, and wherein a DR4 variant consisting of amino acids 24 to 468 of

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SEQ ID NO:2, with the exception that amino acids 265-468 of SEQ ID NO:2 are deleted and replaced with said polypeptide, induces apoptosis *in vitro* when over-expressed in human 293 embryonic kidney cells.

<sup>174</sup>  
~~390~~. (New) The polynucleotide of claim ~~385~~<sup>166</sup>, further comprising a heterologous polynucleotide.

<sup>175</sup>  
~~391~~. (New) The polynucleotide of claim ~~390~~<sup>174</sup>, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

<sup>176</sup>  
~~392~~. (New) The polynucleotide of claim ~~391~~<sup>175</sup>, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

<sup>177</sup>  
~~393~~. (New) The polynucleotide of claim ~~392~~<sup>176</sup>, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

<sup>178</sup>  
~~394~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~385~~<sup>166</sup> into a vector.

<sup>179</sup>  
~~395~~. (New) A vector comprising the polynucleotide of claim ~~385~~<sup>166</sup>.

<sup>180</sup>  
~~396~~. (New) The vector of claim ~~395~~<sup>166</sup>, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

E1  
Cont

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<sup>141</sup>  
~~397~~. (New) A host cell comprising the polynucleotide of claim ~~385~~.

<sup>182</sup>  
~~398~~. (New) The host cell of claim ~~397~~<sup>181</sup>, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>171</sup>  
~~399~~. (New) A host cell comprising the polynucleotide of claim ~~389~~<sup>170</sup>.

<sup>172</sup>  
~~400~~. (New) The host cell of claim ~~399~~<sup>171</sup>, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>173</sup>  
~~401~~. (New) A method of producing the polypeptide encoded by the polynucleotide of claim ~~389~~<sup>170</sup>, comprising:

- E-1  
Cont.
- (a) culturing a host cell comprising said first nucleic acid under conditions such that said polypeptide is expressed; and
  - (b) recovering said polypeptide.

<sup>183</sup>  
~~402~~. (New) An isolated polynucleotide comprising a nucleic acid which encodes a polypeptide at least 90% identical to the mature amino acid sequence encoded by the cDNA clone in ATCC Deposit No. 97853, wherein said polypeptide binds TRAIL.

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<sup>181</sup>  
~~403~~. (New) The polynucleotide of claim ~~402~~<sup>183</sup>, wherein said polypeptide is at least 95% identical to the mature amino acid sequence encoded by the cDNA clone in ATCC Deposit No. 97853.

<sup>183</sup>  
~~404~~. (New) The polynucleotide of claim ~~402~~<sup>183</sup>, wherein said polypeptide induces apoptosis.

<sup>186</sup>  
~~405~~. (New) The polynucleotide of claim ~~402~~<sup>183</sup>, further comprising a heterologous polynucleotide.

<sup>187</sup>  
~~406~~. (New) The polynucleotide of claim ~~405~~<sup>186</sup>, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

<sup>187</sup>  
~~407~~. (New) The polynucleotide of claim ~~406~~<sup>187</sup>, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

<sup>189</sup>  
~~408~~. (New) The polynucleotide of claim ~~407~~<sup>188</sup>, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

<sup>190</sup>  
~~409~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~402~~<sup>183</sup> into a vector.

<sup>191</sup>  
~~410~~. (New) A vector comprising the polynucleotide of claim ~~402~~<sup>183</sup>.

E1  
Cont.

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<sup>192</sup>  
~~411~~. (New) The vector of claim ~~410~~<sup>191</sup>, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>193</sup>  
~~412~~. (New) A host cell comprising the polynucleotide of claim ~~402~~<sup>183</sup>.

<sup>194</sup>  
~~413~~. (New) The host cell of claim ~~412~~<sup>193</sup>, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>195</sup>  
~~414~~. (New) **(Non-Elected)** A method of using the host cell of claim ~~413~~<sup>194</sup> to screen for ligand binding, comprising culturing said host cell under conditions such that a polypeptide encoded by said polynucleotide is expressed, contacting said polypeptide with a ligand, and detecting binding of said ligand to said polypeptide.

<sup>196</sup>  
~~415~~. (New) A method of producing the polypeptide encoded by the polynucleotide of claim ~~402~~<sup>183</sup>, comprising:

- (a) culturing a host cell comprising said first nucleic acid under conditions such that said polypeptide is expressed; and
- (b) recovering said polypeptide.

<sup>197</sup>  
~~416~~. (New) An isolated polynucleotide comprising a first nucleic acid at least 90% identical to a second nucleic acid encoding the mature amino acid sequence encoded by the cDNA clone in ATCC Deposit No. 97853;

E1  
Cont

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wherein said first nucleic acid hybridizes to the complement of nucleotides 19 to 1422 of SEQ ID NO:1 under conditions comprising:

- (a) incubating at 42°C in a solution consisting of 50% formamide, 5x SSC, 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA; and
- (b) washing at 65°C in a solution consisting of 0.1x SSC.

<sup>198</sup>  
417. (New) The polynucleotide of claim <sup>197</sup>416, wherein said first nucleic acid is at least 95% identical to said second nucleic acid.

<sup>199</sup>  
418. (New) The polynucleotide of claim <sup>197</sup>416, wherein said second nucleic acid encodes the complete amino acid sequence encoded by the cDNA clone in ATCC Deposit No. 97853.

E1  
Cont  
<sup>200</sup>  
419. (New) The polynucleotide of claim <sup>197</sup>416, wherein said first nucleic acid encodes a polypeptide which binds TRAIL.

<sup>205</sup>  
420. (New) The polynucleotide of claim <sup>197</sup>416, wherein said first nucleic acid encodes a polypeptide which induces apoptosis.

<sup>206</sup>  
421. (New) The polynucleotide of claim <sup>197</sup>416, further comprising a heterologous polynucleotide.

<sup>207</sup>  
~~422~~. (New) The polynucleotide of claim ~~421~~<sup>206</sup>, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

<sup>208</sup>  
~~423~~. (New) The polynucleotide of claim ~~422~~<sup>207</sup>, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

<sup>209</sup>  
~~424~~. (New) The polynucleotide of claim ~~423~~<sup>208</sup>, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

<sup>210</sup>  
~~425~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~416~~<sup>197</sup> into a vector.

<sup>211</sup>  
~~426~~. (New) A vector comprising the polynucleotide of claim ~~416~~<sup>197</sup>.

<sup>212</sup>  
~~427~~. (New) The vector of claim ~~426~~<sup>211</sup>, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>213</sup>  
~~428~~. (New) A host cell comprising the polynucleotide of claim ~~416~~<sup>197</sup>.

<sup>214</sup>  
~~429~~. (New) The host cell of claim ~~428~~<sup>213</sup>, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>201</sup>  
~~430~~. (New) A host cell comprising the polynucleotide of claim ~~419~~<sup>200</sup>.

E1  
Cont.

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<sup>202</sup>  
~~431~~. (New) The host cell of claim ~~430~~<sup>201</sup>, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>203</sup>  
~~432~~. (New) (**Non-Elected**) A method of using the host cell of claim ~~430~~<sup>201</sup> to screen for ligand binding, comprising culturing said host cell under conditions such that a polypeptide encoded by said polynucleotide is expressed, contacting said polypeptide with a ligand, and detecting binding of said ligand to said polypeptide.

<sup>204</sup>  
~~433~~. (New) A method of producing the polypeptide encoded by said first nucleic acid of claim ~~419~~<sup>200</sup>, comprising:

- (a) culturing a host cell comprising said first nucleic acid under conditions such that said polypeptide is expressed; and
- (b) recovering said polypeptide.

<sup>215</sup>  
~~434~~. (New) An isolated polynucleotide comprising a nucleic acid which encodes the mature amino acid sequence encoded by the cDNA clone in ATCC Deposit No. 97853.

<sup>216</sup>  
~~435~~. (New) The polynucleotide of claim ~~434~~<sup>215</sup>, wherein said nucleic acid encodes the complete amino acid sequence encoded by the cDNA clone in ATCC Deposit No. 97853.

E1  
Cont

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<sup>217</sup>  
~~436~~. (New) The polynucleotide of claim <sup>215</sup>~~434~~, wherein said first nucleic acid encodes a polypeptide which binds TRAIL.

<sup>221</sup>  
~~437~~. (New) The polynucleotide of claim <sup>215</sup>~~434~~, wherein said first nucleic acid encodes a polypeptide which induces apoptosis.

<sup>222</sup>  
~~438~~. (New) The polynucleotide of claim <sup>215</sup>~~434~~, further comprising a heterologous polynucleotide.

<sup>223</sup>  
~~439~~. (New) The polynucleotide of claim <sup>222</sup>~~438~~, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

<sup>224</sup>  
~~440~~. (New) The polynucleotide of claim <sup>223</sup>~~439~~, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

<sup>225</sup>  
~~441~~. (New) The polynucleotide of claim <sup>224</sup>~~440~~, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

<sup>226</sup>  
~~442~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim <sup>215</sup>~~434~~ into a vector.

<sup>227</sup>  
~~443~~. (New) A vector comprising the polynucleotide of claim <sup>215</sup>~~434~~.

E1  
Cont.

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<sup>228</sup>  
~~444.~~ (New) The vector of claim ~~443~~<sup>227</sup>, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>229</sup>  
~~445.~~ (New) A host cell comprising the polynucleotide of claim ~~424~~<sup>215</sup>.

<sup>230</sup>  
~~446.~~ (New) The host cell of claim ~~445~~<sup>229</sup>, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>218</sup>  
~~447.~~ (New) A host cell comprising the polynucleotide of claim ~~436~~<sup>207</sup>.

<sup>219</sup>  
~~448.~~ (New) The host cell of claim ~~447~~<sup>218</sup>, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>220</sup>  
~~449.~~ (New) **(Non-Elected)** A method of using the host cell of claim ~~447~~<sup>218</sup> to screen for ligand binding, comprising culturing said host cell under conditions such that a polypeptide encoded by said polynucleotide is expressed, contacting said polypeptide with a ligand, and detecting binding of said ligand to said polypeptide.

<sup>231</sup>  
~~450.~~ (New) A method of producing a polypeptide encoded by the nucleic acid of claim ~~434~~<sup>215</sup>, comprising:

(a) culturing a host cell comprising said nucleic acid under conditions such that said polypeptide is expressed; and

(b) recovering said polypeptide.

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E!  
Cont.

<sup>232</sup>  
~~451~~. (New) An isolated polynucleotide comprising 30 contiguous nucleotides of nucleotides 412 to 681 of SEQ ID NO:1; wherein said polynucleotide is usable as a probe for detecting the nucleic acid of SEQ ID NO:1, or the complement thereof.

<sup>233</sup> <sup>232</sup>  
~~452~~. (New) The polynucleotide of claim ~~451~~, comprising 50 contiguous nucleotides of nucleotides 412 to 681 of SEQ ID NO:1.

<sup>237</sup> <sup>232</sup>  
~~453~~. (New) The polynucleotide of claim ~~451~~, which encodes a polypeptide.

<sup>236</sup> <sup>232</sup>  
~~454~~. (New) The polynucleotide of claim ~~451~~, further comprising a heterologous polynucleotide.

<sup>237</sup> <sup>236</sup>  
~~455~~. (New) The polynucleotide of claim ~~454~~, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

E1  
Cont.  
<sup>238</sup> <sup>237</sup>  
~~456~~. (New) The polynucleotide of claim ~~455~~, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

<sup>239</sup> <sup>238</sup>  
~~457~~. (New) The polynucleotide of claim ~~456~~, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

<sup>240</sup> <sup>232</sup>  
~~458~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~451~~ into a vector.

241

459. (New) A vector comprising the polynucleotide of claim 451.

232

242

241

460. (New) The vector of claim 459, wherein said polynucleotide is operably

associated with a heterologous regulatory sequence.

243

232

461. (New) A host cell comprising the polynucleotide of claim 451.

244

243

462. (New) The host cell of claim 461, wherein said isolated polynucleotide is

operably associated with a heterologous regulatory sequence.

235

463. (New) A method of producing the polypeptide encoded by the

polynucleotide of claim 453, comprising:

234

(a) culturing a host cell comprising said polynucleotide under conditions such

that said polypeptide is expressed; and

(b) recovering said polypeptide.

245

464. (New) An isolated polynucleotide comprising a nucleic acid encoding at

least 50 contiguous amino acids from 1 to 238 of SEQ ID NO:2;

wherein said at least 50 contiguous amino acids bind an antibody with specificity

for the polypeptide of amino acids 24 to 468 of SEQ ID NO:2.

246

245

465. (New) The polynucleotide of claim 464, wherein said nucleic acid

encodes a polypeptide comprising amino acids 132 to 221 of SEQ ID NO:2.

E1  
Cont

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247  
~~466~~

245  
~~464~~

(New) The polynucleotide of claim ~~464~~, wherein said nucleic acid encodes a polypeptide comprising amino acids 35 to 92 of SEQ ID NO:2.

248  
~~467~~

245  
~~464~~

(New) The polynucleotide of claim ~~464~~, wherein said nucleic acid encodes a polypeptide comprising amino acids 114 to 160 of SEQ ID NO:2.

249  
~~468~~

245  
~~464~~

(New) The polynucleotide of claim ~~464~~, further comprising a heterologous polynucleotide.

250  
~~469~~

249  
~~468~~

(New) The polynucleotide of claim ~~468~~, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

251  
~~470~~

250  
~~469~~

(New) The polynucleotide of claim ~~469~~, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

252  
~~471~~

251  
~~470~~

(New) The isolated polypeptide of claim ~~470~~, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

253  
~~472~~

245  
~~464~~

(New) A method of producing a vector that comprises inserting the polynucleotide of claim ~~464~~ into a vector.

254  
~~473~~

245  
~~464~~

(New) A vector comprising the polynucleotide of claim ~~464~~.

E1  
Cont.

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255  
474

254

(New) The vector of claim 473, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

256  
475

255  
464

(New) A host cell comprising the polynucleotide of claim 464.

257  
476

256

(New) The host cell of claim 475, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

258  
477

245

(New) A method of producing a polypeptide encoded by the nucleic acid of claim 464, comprising:

- (a) culturing a host cell comprising said nucleic acid under conditions such that said polypeptide is expressed; and
- (b) recovering said polypeptide.

259  
478

(New) An isolated polynucleotide comprising a nucleic acid selected from the group consisting of:

- (a) a nucleic acid which encodes at least 30 contiguous amino acids from 169 to 240 of SEQ ID NO:2;
- (b) a nucleic acid which encodes at least 30 contiguous amino acids from 267 to 298 of SEQ ID NO:2; and
- (c) a nucleic acid which encodes at least 30 contiguous amino acids from 330 to 364 of SEQ ID NO:2;

E1  
Cont.

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wherein said at least 30 contiguous amino acids bind an antibody with specificity for the polypeptide of amino acids 24 to 468 of SEQ ID NO:2.

<sup>260</sup>  
~~479~~. (New) The polynucleotide of claim <sup>259</sup>~~478~~, wherein said nucleic acid is (a).

<sup>261</sup>  
~~480~~. (New) The polynucleotide of claim <sup>260</sup>~~479~~, wherein said nucleic acid further comprises (b).

<sup>262</sup>  
~~481~~. (New) The polynucleotide of claim <sup>259</sup>~~478~~, wherein said nucleic acid is (b).

<sup>263</sup>  
~~482~~. (New) The polynucleotide of claim <sup>259</sup>~~478~~, wherein said nucleic acid is (c).

<sup>264</sup>  
~~483~~. (New) The polynucleotide of claim <sup>259</sup>~~478~~, further comprising a heterologous polynucleotide.

E1  
cont.  
<sup>265</sup>  
~~484~~. (New) The polynucleotide of claim <sup>264</sup>~~483~~, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

<sup>266</sup>  
~~485~~. (New) The polynucleotide of claim <sup>265</sup>~~484~~, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

<sup>267</sup>  
~~486~~. (New) The polynucleotide of claim <sup>266</sup>~~485~~, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

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<sup>268</sup>  
~~487~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim <sup>259</sup>~~478~~ into a vector.

<sup>269</sup>  
~~488~~. (New) A vector comprising the polynucleotide of claim <sup>259</sup>~~478~~.

<sup>270</sup>  
~~489~~. (New) The vector of claim <sup>269</sup>~~488~~, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>271</sup>  
~~490~~. (New) A host cell comprising the polynucleotide of claim <sup>259</sup>~~478~~.

<sup>272</sup>  
~~491~~. (New) The host cell of claim <sup>271</sup>~~490~~, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>273</sup>  
~~492~~. (New) A method of producing a polypeptide encoded by the nucleic acid of claim <sup>259</sup>~~478~~, comprising:

- E1  
Cont.
- (a) culturing a host cell comprising said nucleic acid under conditions such that said polypeptide is expressed; and
  - (b) recovering said polypeptide.

<sup>274</sup>  
493. (New) An isolated polynucleotide comprising a nucleic acid which hybridizes to the complement of nucleotides 88 to 732 of SEQ ID NO:1 under conditions comprising:

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- (a) incubating at 42°C in a solution consisting of 50% formamide, 5x SSC, 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA; and
- (b) washing at 65°C in a solution consisting of 0.1x SSC;
- wherein said nucleic acid encodes a polypeptide which binds TRAIL.

<sup>275</sup>  
~~494~~. (New) The polynucleotide of claim <sup>274</sup>~~493~~, further comprising a heterologous polynucleotide.

<sup>276</sup>  
~~495~~. (New) The polynucleotide of claim <sup>275</sup>~~494~~, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

<sup>277</sup>  
~~496~~. (New) The polynucleotide of claim <sup>276</sup>~~495~~, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

<sup>278</sup>  
~~497~~. (New) The polynucleotide of claim <sup>277</sup>~~496~~, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

<sup>279</sup>  
~~498~~. (New) A method of producing a vector that comprises inserting the polynucleotide of claim <sup>278</sup>~~497~~ into a vector.

<sup>280</sup>  
~~499~~. (New) A vector comprising the polynucleotide of claim <sup>279</sup>~~498~~.

E!  
Cont.

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F

281

500. (New) The vector of claim 499, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

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282

501. (New) A host cell comprising the polynucleotide of claim 493.

274

283

502. (New) The host cell of claim 501, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

282

284

503. (New) **(Non-Elected)** A method of using the host cell of claim 501 to screen for ligand binding, comprising culturing said host cell under conditions such that a polypeptide encoded by said polynucleotide is expressed, contacting said polypeptide a ligand, and detecting binding of said ligand to said polypeptide.

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285

504. (New) A method of producing the polypeptide encoded by said nucleic acid of claim 493, comprising:

274

(a) culturing a host cell comprising said nucleic acid under conditions such that said polypeptide is expressed; and

(b) recovering said polypeptide.

286

505. (New) An isolated polynucleotide which hybridizes to nucleotides 412 to 681 of SEQ ID NO:1, or the complement thereof, under conditions comprising:

E1  
Cont.

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E

(a) incubating at 42°C in a solution consisting of 50% formamide, 5x SSC, 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA; and

(b) washing at 65°C in a solution consisting of 0.1x SSC.

~~287~~ 506. (New) The polynucleotide of claim ~~286~~ 505, further comprising a heterologous polynucleotide.

~~288~~ 507. (New) A method of producing a vector comprising inserting the polynucleotide of claim ~~286~~ 505 into a vector.

~~289~~ 508. (New) A vector comprising the polynucleotide of claim ~~286~~ 505.

~~290~~ 509. (New) The vector of claim ~~289~~ 508, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

~~291~~ 510. (New) A host cell comprising the polynucleotide of claim ~~286~~ 505.

~~292~~ 511. (New) The host cell of claim ~~291~~ 510, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

~~293~~ 512. (New) An isolated polynucleotide comprising a nucleic acid encoding at least 30 contiguous amino acids of SEQ ID NO:2, wherein said nucleic acid is

operatively associated with one or more regulatory elements capable of directing translation of said at least 30 contiguous amino acids; and wherein said at least 30 contiguous amino acids bind an antibody with specificity for the polypeptide of amino acids 24 to 468 of SEQ ID NO:2.

<sup>294</sup>  
~~513~~. (New) The polynucleotide of claim ~~512~~<sup>293</sup>, further comprising a heterologous polynucleotide.

<sup>295</sup>  
~~514~~. (New) The polynucleotide of claim ~~513~~<sup>294</sup>, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

<sup>296</sup>  
~~515~~. (New) The polynucleotide of claim ~~514~~<sup>295</sup>, wherein said heterologous polypeptide comprises an immunoglobulin Fc region.

<sup>297</sup>  
~~516~~. (New) The isolated polypeptide of claim ~~515~~<sup>296</sup>, wherein said immunoglobulin Fc region is a human immunoglobulin Fc region.

<sup>298</sup>  
~~517~~. (New) A method of producing a vector comprising inserting the polynucleotide of claim ~~512~~<sup>293</sup> into a vector.

<sup>299</sup>  
~~518~~. (New) A vector comprising the polynucleotide of claim ~~512~~<sup>293</sup>.

E<sup>1</sup>  
Cont.

110

E

<sup>300</sup>  
~~519~~. (New) The vector of claim <sup>299</sup>~~518~~, wherein said polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>301</sup>  
~~520~~. (New) A host cell comprising the polynucleotide of claim <sup>293</sup>~~512~~.

<sup>302</sup>  
~~521~~. (New) The host cell of claim <sup>301</sup>~~520~~, wherein said isolated polynucleotide is operably associated with a heterologous regulatory sequence.

<sup>303</sup>  
~~522~~. (New) A method of producing a polypeptide encoded by the nucleic acid of claim <sup>293</sup>~~512~~, comprising:

- E1  
Cont.
- (a) culturing a host cell comprising said nucleic acid under conditions such that said polypeptide is expressed; and
  - (b) recovering said polypeptide.